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10/567,751	02/10/2006	Noel Cantenot	0600-1195	5635
<small>465</small> YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			<small>7590</small> EXAMINER NG, FAN	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/567,751

**Applicant(s)**

CANTENOT ET AL.

**Examiner**

FAN NG

**Art Unit**

4145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 10 February 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 15-19 and 21-31 is/are rejected.  
7) ☒ Claim(s) 20 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 02/10/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Specification***

1. The abstract of the disclosure is objected to because it is over allowable 150 words. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities:
3. *There is no field of invention indicated. There is no summary indicated. There is no detail description indicated. The reason to object is because they are require by MPEP, see the form paragraph. (Side note: An application can not be just in one big column and goes on and on, it has to be break in to sessions).*
  - a. Appropriate correction is required.
  - b. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **i. Arrangement of the Specification**

- c. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Objections***

4. Claims 15-31 are objected to because of the following informalities: The office objects to the usage of the transitional phrase used as "in", "wherein" because these transitional phrase are associated with optional or intended use per MPEP 2111.04. The examiner recommends that the applicant either amend the claims with an appropriate transitional phrase which can not be interpreted as optional or clarify on the record that the limitations are positive claim limitation and not optional limitations. For purpose of examination the office has interpreted these transitional phrases as positive claim limitations. Appropriate correction is required.

5. Claim(s) 26-28 are directed to a software product which performs the method of claim 15, which is a method claim and has additional limitation. Both Claims 26 and 27 are objected to because claims 26 and 27 should really should be independent claims and not a depend claim. The office recommends that the applicant amend these dependent claims into independent claim form. Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

d. Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

e. Claims 26-28, 29-31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

f. Claim(s) 26-28 are directed to a software product. The claim language does not state that the software product is stored on a computer readable medium in the form of instructions which are executable by a processor. The preamble which has been interpreted as an intended use state that software product is for implementation by a computer and the software product . A software product is a program and a program is non-statutory.

- g. Claim(s) 29-31 include(s) data structure in the preamble, and the indented use is "A data structure representative of a message offering access to a ...",  
The data structure has been interpreted as a a signal. A signal is non-statutory.
  - h. Appropriate correction is required.
  - i.
7. Because of claim(s) 26-27, 29-31 are rejected the associated dependent claims are also rejected.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
- j. A person shall be entitled to a patent unless –
  - k. (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
9. Claims 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Magret (6088146)
10. As per claim 29, **Magret teaches** a data structure representative of an extended multicast information broadcast request message (**col. 14, line 30-50: is a data structure of request message that represent the mobile unit (roaming terminal) wants to get service in a foreign site, which is extended multicast service**),  
exchanged in the context of a multicast information broadcasting method extended (**col.**

**14, line 30-50 and col. 14, line 65: exchange information between FA and Mobile unit is formed, and the information exchanged is enable mobile unit to get multicast information broadcasting service)**, from a local multicast broadcast on an originating site to a roaming terminal user belonging to this originating site (**col. 12, line 30-40**), to at least one separate site hosting this roaming terminal (**col. 12, line 30-40: roaming terminal is in the FA, which is separate hosting**) and linked to this originating site by the IP network (**Fig. 1-2, IP network is used to link all of them**), the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast information broadcasting address in this originating site (**col. 12, line 30-40: information is generated and transmitted**), wherein said extended multicast information broadcast request message is transmitted from the roaming terminal (**Fig. 3, #380: transmit and Fig. 5, #520: received**) to the originating site (**Fig. 5, #570: forward to origination site**) and in that said data structure includes at least:

11. a header field containing an extended multicast information broadcast request message identification code (**col. 14, line 30-50: Type, S,B...L,P are identification code to defined what kind of message it is**); a field containing the first local multicast information broadcasting address (**col. 14, line 30-50: home address is first local address**); a field containing an identification code of the roaming terminal (**col. 14, line 30-50: chart has identification code for roaming terminal**).

As per claim 30, **Magret teaches** a data structure representative of a message offering

access to a global multicast information broadcast (**col. 12, line 55-end: which is the advertisement message data structure, it is offering access to the mobile unit**), exchanged in the context of a multicast information broadcasting method extended (**col. 14, line 30-50 and col. 14, line 65: exchange information between FA and Mobile unit is formed, and the information exchanged is enable mobile unit to get multicast information broadcasting service**), from a local multicast broadcast on an originating site to a roaming terminal user belonging to this originating site (**col. 12, line 30-40**), to at least one separate site hosting this roaming terminal (**col. 12, line 30-40: roaming terminal is in the FA, which is separate hosting**) and linked to this originating site by the IP network (**Fig. 1-2, IP network is used to link all of them**), the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast information broadcasting address in this originating site (**col. 12, line 30-40: information is generated and transmitted**), wherein said message offering access to a global multicast information broadcast is transmitted from the originating site to said roaming terminal (**if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the mobile unit and ready to communication with the mobile unit, see col. 12, line 30-40**), and in that said data structure includes at least: a header field containing an access offer message identification code (**col. 15, line 15-35: is a access offer message, field type identify what kind of message it is**); a field containing a second global multicast information broadcasting address (**it is inherent, the message must contain second global address, because the**



**message is send to second global broadcasting address (FA).),** under which should be broadcast the information being broadcast under the first local broadcasting address **(col. 12, line 30-40: the broadcast information is send to mobile unit).**

As per claim 31, **Magret teaches** a data structure representative of a message accepting the offer **(registration request is accepting the offer from FA's advertisement message)** of access to a global multicast information broadcast, exchanged in the context of a multicast information broadcasting method extended **(col. 14, line 30-50 and col. 14, line 65: exchange information between FA and Mobile unit is formed, and the information exchanged is enable mobile unit to get multicast information broadcasting service)**, from a local multicast broadcast on an originating site **(col. 12, line 30-40)** to a roaming terminal user belonging to this originating site, to at least one separate site hosting this roaming terminal **(col. 12, line 30-40: roaming terminal is in the FA, which is separate hosting)** and linked to this originating site by the IP network **(Fig. 1-2, IP network is used to link all of them)**, the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast information broadcasting address in this originating site **(col. 12, line 30-40: information is generated and transmitted)**, wherein said message accepting the offer of access to a global multicast information broadcast is transmitted from the roaming terminal to said originating site **(if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the mobile unit and ready to**

**communication with the mobile unit, see col. 12, line 30-40)**, and in that said data structure includes: a header field containing an access offer acceptance message identification code (**col. 14, line 30-50: Type, S,B...L,P are identification code to defined what kind of message it is**); a field containing a second global multicast information broadcasting address (**col. 14, line 30-50: care of address which is second global address**), under which should be broadcast the information being broadcast under the first local broadcasting address (**col. 14, line 30-50: the message is broadcast and home address is include, since this is message to accept the offer, thus it should be generate from mobile unit to FA or home agent. See objection**).

## **12. Claim Rejections - 35 USC § 103**

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

14. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim(s) 15-18, 21-28 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Paila (7171198) in view of Magret (6988146).

16. As per claim 15, a multicast information broadcasting method extended from a local multicast information broadcast on an originating site to a roaming terminal user

belonging to this originating site, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network, the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast information broadcasting address in this originating site, wherein the latter consists, after interconnecting said roaming terminal to the IP network on this separate site, in:

17. **Paila teaches** transmitting, from the roaming terminal to the originating site (**col. 2, line 10-11: “mobile node sends request message to foreign ...” Here the foreign domain is the originating site, and roaming terminal is mobile node in the prior art**), an extended multicast information broadcast request message (**the message mobile node transmitted is extended multicast, because mobile node want to connect to its home node or at least tell the foreign node which home node it is belong to, and home node provided is multicast service see col. 1 line 15-20. Furthermore, the message is broadcasted because any electric signal, when transmission is broadcast**), said request message containing at least said first local multicast information broadcasting address and an identification code of said roaming terminal (**col. 2, line 11:” request message to the foreign domain...” so the foreign domain address must be in the message, also it is inherent that the message must contains its own address, otherwise there wouldn’t any communication**); and, following the identification of said roaming terminal by said originating site (**col. 2, line 14-16, mobile node send request to originating site (foreign node), with its identification information**),

18. **Paila doesn't teach** b) transmitting, from the originating site to said roaming terminal, a message offering access to a global multicast information broadcast, said message offering access including at least one second global multicast information broadcasting address, the broadcasting source of which is identified in the originating site; and, following the receipt of said message offering access by said roaming terminal, c) transmitting from the roaming terminal to the originating site, via the IP network, a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address; and, after receipt of the message accepting the offer of access on said originating site, d) transferring the information to be broadcast from the first to the second broadcasting address; and e) transmitting, by global multicast broadcast, the information to be broadcast under the second address, which enables said roaming terminal interconnected to the separate site to receive, on the separate site, the information being broadcast under the first local broadcasting address, broadcast under the second global broadcasting address.

19. **Magret teaches** b) transmitting, from the originating site to said roaming terminal, a message offering access to a global multicast information broadcast (**Fig. 3, #330, foreign agent sends advertisement message to offing mobile unit to joint**), said message offering access including at least one second global multicast information broadcasting address (**if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the**

**mobile unit and ready to communication with the mobile unit, see col. 12, line 30-40), the broadcasting source of which is identified in the originating site (col. 15, line 45-51 and col. 17, before line 45: multiple source address is given to the mobile); and, following the receipt of said message offering access by said roaming terminal (Fig. 3, #340, message is received at mobile node and response to the foreign agent),**

20. c) transmitting from the roaming terminal to the originating site, via the IP network, a message accepting the offer of access to the information being broadcast at **(Fig. 3, #350: response to the originating site (Foreign Agent) with registration request, which means accept the offer, otherwise why registration request. All the communication in the prior art is using IP network, see col. 9, line 63-64. )** said second global multicast information broadcasting address **(col. 14, line 25-29, also chart in col. 14 between line 30-50: home agent address is shown, which mean want to communication with home agent, because the message is a registration request message. Also home agent is the second global multicast site);** and, after receipt of the message accepting the offer of access on said originating site **(Fig. 3, #350, and col. 14, line 30-50: care of address with is the foreign site (originating address, mobile node must access to the foreign site before access to the home agent),**

21. d) transferring the information to be broadcast from the first to the second broadcasting address (**Fig. 7, #750: home agent send information to mobile node, which will go through foreign domain**); and

22. e) transmitting, by global multicast broadcast, the information to be broadcast under the second address (**Fig. 2, and col. 12, line 30-38: home agent (second address) transmitting to mobile unit, it is global multicast broadcast, because the message is from home unit to foreign agent than send to mobile unit**), which enables said roaming terminal interconnected to the separate site to receive (**mobile unit (roaming terminal) is in the foreign region and connect to its home region (separate site) by tunneling see, col. 12 line 30-41**), on the separate site, the information being broadcast under the first local broadcasting address (**in formation is broadcast at home agent (first local)**), broadcast under the second global broadcasting address (**col. 12, line 32: mobile node is in the foreign domain (second global broadcasting address)**), thus when home agent send packet to mobile node, the packet must go to foreign domain (**second global broadcasting then foreign agent broadcasting to the mobile node**).

23. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to

its home domain by tunneling, such as to so service may not be available at the foreign domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

24. As per claim 16, **Palia and Margret teach** the method as claimed in claim 15, **Palia doesn't teach** wherein the steps a), b) and c) for transmission between the roaming terminal and the originating site, of the extended multicast broadcast request message, of the message offering access to a global multicast broadcast, or of the message accepting the offer of access are executed in point-to-point mode.

**Margret teaches** wherein the steps a), b) and c) for transmission between the roaming terminal and the originating site (**Fig. 3, mobile unit (roaming terminal) communicating with foreign agent (originating site)**), of the extended multicast broadcast request message (**Fig. 3, #380, #350**), of the message offering access to a global multicast broadcast (**Fig. 3, #330**), or of the message accepting the offer of access are executed in point-to-point mode.

25. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign

domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

26.

As per claim 17, **Palia and Margret teach** the method as claimed in claim 15, **Palia doesn't teach** wherein the step e) for global multicast transmission is performed in point-multipoint mode.

**Margret teaches** wherein the step e) for global multicast transmission is performed in point-multipoint mode (**col. 12, line 30-41: tunneling is transmission from home agent to foreign domain, and Fig. 2, from home agent (#240) to foreign agent, #FA1, FA2... are point to multi-point** ).

27. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

28. As per claim 18, **Palia and Margret teach** The method as claimed in claim 15, **Palia doesn't teach** wherein, for an originating site including a broadcast server connected to the IP network via a router, the step consisting in transferring the



information to be broadcast from the first to the second broadcasting address includes: a step for local multicast broadcasting of the information to be broadcast from the broadcast server to said router; a step for redirecting the information to be broadcast by substituting the second global multicast broadcasting address for the first local broadcasting address.

29. **Margret teaches** wherein, for an originating site including a broadcast server connected to the IP network via a router (**col. 6, line 60 – col. 7, line 2**),

30. the step consisting in transferring the information to be broadcast from the first to the second broadcasting address includes:

31. a step for local multicast broadcasting of the information to be broadcast from the broadcast server to said router (**col. 10, line 20-24**); a step for redirecting the information to be broadcast by substituting the second global multicast broadcasting address for the first local broadcasting address (**col. 12, line 30-41**).

32. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign

domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

33.

As per claim 21, **Palia teaches** a multicast information broadcasting system extended, from a local multicast broadcast on an originating site to a roaming workstation user belonging to this originating site, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network (**Fig. 3 and col. 2, line 10-20: mobile node is in the foreign site, but mobile node is belong to home domain, foreign site and home domain is in separate site, they are linked by IP network, col. 1, line 20-22**),

**34. Palia doesn't teach** the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast broadcasting address in this originating site, wherein said system includes at least, at said originating site: a means of receiving an extended multicast information broadcast request message, sent by said roaming terminal from said separate site, said request message containing at least said first local multicast information broadcasting address and an identification code of said roaming terminal, said reception means being used for the identification of said roaming terminal by the originating site; a means of transmitting, from the originating site to the roaming terminal, a message offering access to a global multicast information broadcast, said message offering access including at least one second global multicast information broadcasting address, the broadcasting source of

which is identified in the originating site; a means of receiving a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address, sent by said roaming terminal; a means of transferring the information to be broadcast from the first to the second broadcasting address; a means of transmission, by global multicast information broadcast, of the information to be broadcast under the second address.

35. **Magret teaches** the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast broadcasting address in this originating site (**col. 12, line 30-40: message is generate at home agent (first local) and being broadcast by foreign site (local) multicast**), wherein said system includes at least, at said originating site:

36. a means of receiving an extended multicast information broadcast request message, sent by said roaming terminal from said separate site (**col. 24, line 42-46 and Fig. 6, #600 HA is home agent, the combination of them means for receiving extended... from said separate site**), said request message containing at least said first local multicast information broadcasting address and an identification code of said roaming terminal (**col. 14, line 25-30, and chart in col. 14, line 30-50: first local address is care of address and identification code**), said reception means being used for the identification of said roaming terminal by the originating site (**col. 14, line 25-30, and chart in col. 14, line 30-50, the combination of them means for used**

**for the ... by the origination site. Note, first local address is care of address and identification code);**

37. a means of transmitting, from the originating site to the roaming terminal, a message offering access to a global multicast information broadcast (**Fig. 3, #330, foreign agent sends advertisement message to offering mobile unit to joint, means for transmitting, from ... information broadcast**), said message offering access including at least one second global multicast information broadcasting address (**if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the mobile unit and ready to communication with the mobile unit, see col. 12, line 30-40**), the broadcasting source of which is identified in the originating site (**col. 15, line 45-51 and col. 17, before line 45: multiple source address is given to the mobile**);

38. a means of receiving a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address, sent by said roaming terminal (**Fig. 3, #340, message is received at mobile node and response to the foreign agent (which is tunneling to the home agent col. 12, line 30-40), means for accepting the offer, corresponding to the message send at Fig. 3, #380**);

39. a means of transferring the information to be broadcast from the first to the second broadcasting address (**Fig. 6, #600 to #620 and col. 12, line 30-40, the combination of them means for transferring ... second broadcasting address**);

40. a means of transmission, by global multicast information broadcast, of the information to be broadcast under the second address (**col. 12, line 32: mobile node is in the foreign domain (second global broadcasting address), thus when home agent send packet to mobile node, the packet must go to foreign domain (second global broadcasting) then foreign agent broadcasting to the mobile node**).

41. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

42.

As per claim 22, **Palia and Margret teach** the system as claimed in claim 21,

43. **Palia doesn't teach** wherein said means of receiving an extended multicast broadcast request message, of transmitting, from the originating site to the roaming terminal, a message offering access to a global multicast broadcast, of receiving a

message accepting the offer of access to the information being broadcast at said second global multicast broadcasting address, of transferring the information to be broadcast from the first to the second broadcasting address, of transmitting, by global multicast broadcast, the information to be broadcast under the second address, are formed by software modules.

44. **Magret teaches** wherein said means of receiving an extended multicast broadcast request message (**Fig. 3, #380, #330**), of transmitting, from the originating site to the roaming terminal (**Fig. 3, #330, foreign agent sends advertisement message to offing mobile unit to joint**), a message offering access to a global multicast broadcast (**if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the mobile unit and ready to communication with the mobile unit, see col. 12, line 30-40**), of receiving a message accepting the offer of access to the information being broadcast at said second global multicast broadcasting address (**Fig. 3, #350**), of transferring the information to be broadcast from the first to the second broadcasting address, of transmitting, by global multicast broadcast, the information to be broadcast under the second address (**col. 12, line 30-40**), are formed by software modules (**col. 5, line 40-50**).

45. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila

suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

46. As per claim 23, **Palia and Margret teach** the system as claimed in claim 22,

47. **Palia doesn't teach** wherein said software modules are located on a dedicated machine interconnected by IP local area network on the originating site.

48. **Margret teaches** wherein said software modules are located on a dedicated machine interconnected by IP local area network on the originating site (**col. 5, line 40-50**).

Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for using software in the hardware, such as every electronic device is controlled by software, thus save human resource, they are in the analogues art of communication protocol.

49.

As per claim 24, **Palia and Margret teach** the system as claimed in claim 22,

50. **Paila teaches** wherein, said originating site including a broadcast server connected to the IP network via a router, said software modules are located in said router.

51. **Margret teaches** wherein, said originating site including a broadcast server connected to the IP network via a router, said software modules are located in said router (**col. 5, line 40-50**).

52. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for using software in the hardware, such as every electronic device is controlled by software, thus save human resource, they are in the analogues art of communication protocol.

53.

As per claim 25, **Paila teaches** a roaming terminal equipped to implement the multicast information broadcasting method extended, from a local multicast information broadcast on an originating site, to which this roaming terminal belongs, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network (**Fig. 3 and col. 2, line 10-20: mobile node is in the foreign site, but mobile node is belong to home domain, foreign site and home domain is in separate site, they are linked by IP network, col. 1, line 20-22**),



54. **Paila doesn't teach** the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast information broadcasting address in this originating site, wherein said roaming terminal includes at least, stored in the mass memory of the latter: a software module for creating and transmitting an extended multicast information broadcast request message, this request message containing at least one first local multicast information broadcasting address and an identification code of this roaming terminal; a software module for receiving and reading a message offering access to a global multicast information broadcast, this message offering access including at least one second global multicast information broadcasting address, the broadcasting source of which is identified in the originating site; a software module for creating and transmitting to the originating site, via the IP network, a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address.

55. **Magret teaches** the local multicast information broadcast being generated by an information broadcasting source located at a first local multicast information broadcasting address in this originating site (**col. 12, line 30-40: message is generate at home agent (first local) and being broadcast by foreign site (local) multicast**), wherein said roaming terminal includes at least, stored in the mass memory (**col. 5, line 40-50, it is inherent, that a software is software is stored in the memory**) of the latter:

56. a software module (**col. 5, line 40-50**) for creating and transmitting an extended multicast information broadcast request message (**Fig. 3, #380**), this request message containing at least one first local multicast information broadcasting address and an identification code of this roaming terminal (**col. 14, line 25-30, and chart in col. 14, line 30-50: first local address is care of address and identification code**); a software module (**col. 5, line 40-50**) for receiving and reading a message offering access (**Fig. 3, #340, offering message is received and read by mobile unit, and a question is ask by the foreign agent**) to a global multicast information broadcast, this message offering access including at least one second global multicast information broadcasting address (**if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the mobile unit and ready to communication with the mobile unit, see col. 12, line 30-40**), the broadcasting source of which is identified in the originating site (**col. 14, chart between line 30-50, home address is identified**); a software module (**col. 5, line 40-50**) for creating and transmitting to the originating site (**Fig. 5, #570: forwards means creating and transmitted**), via the IP network (**Fig. 1-2**), a message accepting the offer of access (**Fig. 5, #570: registration request means accepting the offer**) to the information being broadcast at said second global multicast information broadcasting address (**col. 12, line 30-40**).

57. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila

suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

58.

As per claim 26, **Palia and Margret teach** of the multicast information broadcasting method extended, from a local multicast broadcast on an originating site, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network, the local multicast information broadcast being generated by an information broadcasting source located at a first multicast information broadcasting address in this originating site, as claimed in claim 15:

59. **Palia doesn't teach** a software product for the implementation, by a roaming terminal type computer ...

60. wherein it includes, for invoking on said roaming terminal: a software for creating and transmitting an extended IP multicast information broadcast request message, this request message containing at least a first local multicast information broadcasting address and an identification code of this roaming terminal; a software module for receiving and reading a message offering access to a global multicast information broadcast, this message offering access including at least one second global multicast information broadcasting address, the broadcasting source of which is identified in the

originating site; a software module for creating and transmitting to the originating site, via the IP network, a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address.

61. **Margret teaches** a software product for the implementation, by a roaming terminal type computer (**col. 5, line 40-50**) ...
62. wherein it includes, for invoking on said roaming terminal: a software module (**col. 5, line 40-50**) for creating and transmitting an extended IP multicast information broadcast request message (**Fig. 3, #380**), this request message containing at least a first local multicast information broadcasting address and an identification code of this roaming terminal (**col. 14, line 25-30, and chart in col. 14, line 30-50: first local address is care of address and identification code**); a software module (**col. 5, line 40-50**) for receiving and reading a message offering access (**Fig. 3, #340, offering message is received and read by mobile unit, and a question is ask by the foreign agent**) to a global multicast information broadcast, this message offering access including at least one second global multicast information broadcasting address (**if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the mobile unit and ready to communication with the mobile unit, see col. 12, line 30-40**), the broadcasting source of which is identified in the originating site (**col. 14, chart between line 30-50, home address is identified**); a software module (**col. 5, line 40-50**) for creating and transmitting to the originating site (**Fig. 5, #570: forwards means creating**

**and transmitted**), via the IP network (**Fig. 1-2**), a message accepting the offer of access (**Fig. 5, #570: registration request means accepting the offer**) to the information being broadcast at said second global multicast information broadcasting address (**col. 12, line 30-40**).

63. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

64. As per claim 27, **Palia and Margret teach** a software product for the implementation, by a computer, of the multicast information broadcasting method extended, from a local multicast broadcast on an originating site, to at least one separate site hosting this roaming terminal and linked to this originating site by the IP network, from an information broadcasting source located at a first local multicast information broadcasting address in this originating site, as claimed in claim 15, wherein it includes, for invoking on said originating site:

**65. Palia doesn't teach** wherein it includes, for invoking on said originating site: a software module for receiving an extended IP multicast information broadcast request message sent by the roaming terminal from the separate site, this request message including at least the first local multicast information broadcasting address and an identification code of said roaming terminal, said receiving software module being used for the identification on the separate site of said roaming terminal by the originating site; a software module for transmitting from the originating site, to the roaming terminal, a message offering access to a global multicast information broadcast, said message offering access including at least one second global multicast information broadcasting address, the broadcasting source of which is identified in the originating site; a software module for receiving a message accepting the offer of access to the information being broadcast at said second global multicast information broadcasting address, sent by said roaming terminal; a software module for transferring the information to be broadcast from the first to the second broadcasting address; a software module for transmitting by global multicast information broadcast, the information to be broadcast under said second address.

**66. Margret teaches** a software module (**col. 5, line 40-50**) for receiving an extended IP multicast information broadcast request message (**Fig. 5, #570**), sent by the roaming terminal from the separate site (**Fig. 5, #520 which is from mobile unit, note mobile unit (roaming terminal) can't directly connect to the home agent, because if it can physically, directly connect to its home agent, this mobile unit**

**can't be called roaming terminal**), this request message including at least the first local multicast information broadcasting address and an identification code of said roaming terminal (**col. 14, line 30-50**), said receiving software module (**col. 5, line 40-50**) being used for the identification on the separate site of said roaming terminal by the originating site (**col. 14, line 25-30, and chart in col. 14, line 30-50: first local address is care of address and identification code**); a software module (**col. 5, line 40-50**) for transmitting from the originating site, to the roaming terminal (**col. 12, line 30-40**), a message offering access to a global multicast information broadcast, said message offering access including at least one second global multicast information broadcasting address (**if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the mobile unit and ready to communication with the mobile unit, see col. 12, line 30-40**), the broadcasting source of which is identified in the originating site (**col. 14, chart between line 30-50, home address is identified**); a software module (**col. 5, line 40-50**) for receiving a message accepting the offer of access (**Fig. 3, #340, offering message is received and read by mobile unit, and a question is ask by the foreign agent**) to the information being broadcast at said second global multicast information broadcasting address (**if network support SSM protocol, then col. 15, line 1-7, note, when specific multicast address extension is added which means accepting the mobile unit and ready to communication with the mobile unit, see col. 12, line 30-40**), sent by said roaming terminal (**Fig. 3, #350, message is sent by roaming terminal**); a software module (**col. 5, line 40-50**) for transferring the information to be

broadcast from the first to the second broadcasting address (**col. 12, line 30-40**); a software module (**col. 5, line 40-50**) for transmitting by global multicast information broadcast, the information to be broadcast under said second address (**col. 12, line 30-40: information is broadcast under FA which is under the second address**).

67. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

68. As per claim 28, **Palia and Margret teach** the software product as claimed in claim 27, **Palia doesn't teach** wherein, for an originating site including a router, said software modules are stored in a mass memory of said router.

69. **Margret teaches** wherein, for an originating site including a router, said software modules (**col. 5, line 40-50**) are stored in a mass memory of said router (**col. 5, line 40-50, it is inherent, that a software is software is stored in the memory**).



70. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for using software in the hardware, such as every electronic device is controlled by software, thus save human resource, they are in the analogues art of communication protocol.

71. Claim(s) 19 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Paila (7171198) in view of Magret (6988146), and further in view of Esmailzadeh (6259724) and Novaes (6961319).

72. As per claim 19, **Palia and Margret teach** the method as claimed in claim 15,

73. **Palia teaches** ...extended multicast broadcast request messages (**col. 2, line 11**) ...

74. **Palia does not teach** wherein, for a plurality of ... request messages relating to one and the same first local multicast broadcasting address emanating from a plurality of roaming terminals belonging to said originating site and each interconnected to the IP network on a separate site, said step e), consisting in transmitting, by global multicast broadcast, the information to be broadcast under the second address consists in creating a global multicast broadcast tree, the root element of which consists of one of

the routers common to the broadcast branches making up this global multicast broadcast tree.

75. **Margret teaches** said step e), consisting in transmitting, by global multicast broadcast, the information to be broadcast under the second address (**Fig. 2, and col. 12, line 30-38: home agent (second address) transmitting to mobile unit, it is global multicast broadcast, because the message is from home unit to foreign agent than send to mobile unit**)...

76. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Magret into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Magret suggests the beneficial for mobile node connect to its home domain by tunneling, such as to so service may not be available at the foreign domain, thus connect to home domain can be obtain its original subscribed service, they are in the analogues art of communication protocol.

77. **Palia and Margret do not teach** wherein, for a plurality of ... request messages relating to one and the same first local multicast broadcasting address emanating from a plurality of roaming terminals belonging to said originating site and each interconnected to the IP network on a separate site, ... consists in creating a global

multicast broadcast tree, the root element of which consists of one of the routers common to the broadcast branches making up this global multicast broadcast tree.

78. **Esmailzadeh teaches** wherein, for a plurality of ... request messages relating to one and the same first local multicast broadcasting address emanating from a plurality of roaming terminals (**Fig. 2, and col. 4, line 9-15: where plurality of request message were sent by mobile station to one base station (first local multicast)**) belonging to said originating site (**Fig. 2, all mobile stations are belonging to one base station domain, where they are physical in its domain**)

79. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Esmailzadeh into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Esmailzadeh suggests plurality of mobile node send request message to base station for access the broadcasting network, such as to enable multiple mobile use access the network, will increase the network capacity, they are in the analogues art of communication protocol.

80. **Palia, Margret and Esmailzadeh do not teach** each interconnected to the IP network on a separate site, ... consists in creating a global multicast broadcast tree, the root element of which consists of one of the routers common to the broadcast branches making up this global multicast broadcast tree.

81. **Novaes teaches ...and each interconnected to the IP network on a separate site (col. 7, line 40-45: plurality of nodes (s0-s22) connect to P1, and col. 8, line 25-26 they are using IP protocol to connect to P1, furthermore, Fig. 2, and col. 1, line 12-25, the scenario is implement in data communication network with routers, thus it is inherent each node are connect to separate site),**

82. ... consists in creating a global multicast broadcast tree (**Fig. 1**), the root element of which consists of one of the routers common to the broadcast branches making up this global multicast broadcast tree (**Fig. 1, and Fig. 2, #288, #286: root element P**).

83. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Novaes into Paila, since Paila suggests mobile node establish a connection with foreign domain while it is out of the area of its home domain, and Novaes suggests a tree structure when new mobile user joint the network, such as extend the addressing capabilities of a point to point network ... (col. 2, line 50-55), they are in the analogues art of communication protocol.

***Allowable Subject Matter***

84. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

l. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FAN NG whose telephone number is (571)270-3690. The examiner can normally be reached on Monday-Friday; 7:30am-5:30pm.

m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on (571)272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

n. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

85.

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87. FN

/Robert W Wilson/

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Primary Examiner, Art Unit 2419